Patent omphalomesenteric duct: sectioning the unexpected

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DESCRIPTION

We report the case of a male newborn, the second triplet of non-consanguineous healthy parents, born from a dichorionic triamniotic pregnancy with adequate prenatal care and normal ultrasounds. Spontaneous labour occurred at 32 weeks of gestation and a caesarean section was performed. The Apgar score was 5/6/8, birth weight was 1395 g and no malformations were noted. After sectioning the umbilical cord for venous catheter placement, an abnormal structure with a lumen discharging watery liquid was noted (figure 1). The abdominal ultrasound was normal, so a catheter was passed through the lumen and intestinal content was aspirated.

Surgical correction, with resection of the duct, took place on the fifth day of life (figure 2).

Histology revealed proximal intestinal mucosa consistent with patent omphalomesenteric duct (OMD). The newborn regained normal bowel function and resumed breastfeeding after 5 days.

The OMD is an embryological structure that connects the midgut to the yolk sac and normally regresses between the fifth and ninth weeks of fetal development.[1]

Remnants of the OMD may persist in approximately 2% of the population, the most common presentation being Meckel's diverticulum. Symptoms occur most frequently during childhood years and vary greatly, as patients may be asymptomatic, have abdominal pain, painless rectal bleeding, or intussusception/prolapse of ileum at the umbilicus, among others.[1–3]

An accurate diagnosis and management of this condition, with a highly unusual presentation, is important as it may lead to invagination of the small bowel and intestinal obstruction, with a significant increase in mortality.[2]

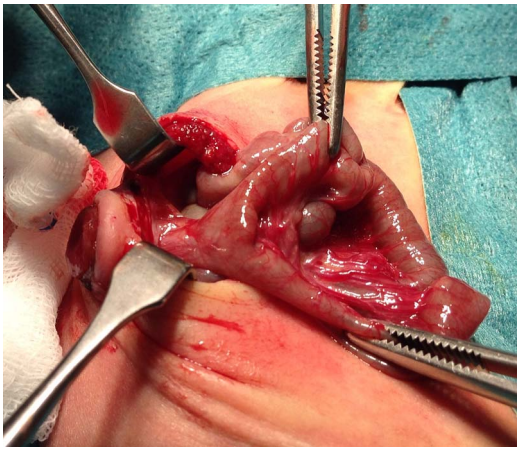

Figure 2 Surgery demonstrating the patent omphalomesenteric duct.

Learning points

- A patent omphalomesenteric duct, although rare, may be easily identifiable in the newborn period, such as in an incidental finding after sectioning the umbilical cord.
- The differential diagnosis is mainly with patent urachus and umbilical polyp.
- If there is doubt about the nature of the umbilical discharge, an ultrasound or fistulogram can contribute to a final diagnosis and delineate the anatomy before surgery, however, if the discharge is obviously faecal, there is no need for investigative techniques.

Figure 1 Umbilical cord with two umbilical arteries, one umbilical vein and a fourth structure with a lumen discharging intestinal content.

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Competing interests None.

Patient consent Obtained.

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